

REMARKS

Examiner Farahani is to be complimented for his diligence and is thanked for his ongoing examination of our application. Reconsideration of the rejection of all claims is respectfully requested. We wish to comment on his remarks as follows:

Reconsideration is requested of all rejections based on 35 U.S.C.103:

Examiner has based his rejection on Bulucea in view of Ernick. In summarizing the relevant section of Bulucea, Examiner states as follows:

"Regarding claims 12 and 20, Bulucea discloses, figures 5 and 6, an N type silicon body 52 (see column 8, lines 45-49) having an upper surface and an N+ buried collector 56 located a first distance below the upper surface and have a thickness; a secondary and a primary base region, 66 and 64, respectively, wherein the primary base region extends a third distance from the surface, and the secondary base region extends a second distance from the surface, the primary base region is more heavily doped than the secondary base region; and an emitter region 58 wholly within the primary base."

This summary of Bulucea is accurate as far as it goes but it is only a partial

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description of the present invention. We refer here, not to the absence of a gradient in the base (for which teaching Examiner now relies on Ernack), but to the description of the primary base region that is taught in our claim 12 as follows (emphasis added):

12. A twin gain bipolar transistor comprising:

an N type silicon body having an upper surface;

an N<sup>+</sup> buried collector located a first distance below said upper surface and having a thickness;

a secondary base region comprising P type silicon, throughout which boron ions are uniformly distributed, and extending a second distance below said upper surface;

**a primary base region of boron doped P<sup>+</sup> silicon, wholly within said secondary base region** and extending a third distance below said upper surface; and

an emitter region comprising a region of N<sup>+</sup> silicon wholly within the primary base region and extending a fourth distance below said upper surface.

An examination of the referenced FIGs. 5 and 6 of Bulucea reveals that Bulucea's primary base region 64, of P<sup>+</sup> silicon, is NOT wholly within secondary base region 66 since part of it makes direct contact with collector 76. Thus, some electrons injected from emitter 58 will pass through primary base region 64 directly into collector 76, without first passing through the secondary base region. This is not possible in the present invention. Written confirmation of this inference from the drawings can be found in Bulucea col. 10

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lines 51-55.

In conclusion, we again thank Examiner Farahani for his careful reading of our application.

Reconsideration and withdrawal of the rejection is respectfully requested.

Allowance of all Claims is requested. It is also requested that should Examiner Farahani not find that the Claims are now Allowable, he should please call the undersigned Attorney at (845)-452-5863 to overcome any problems preventing Allowance.

Respectfully submitted

A handwritten signature in black ink, appearing to be 'SBA', written over a horizontal line.

Stephen B. Ackerman #37761